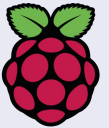


Lesson 1: Getting to know a spreadsheet

了解电子表格

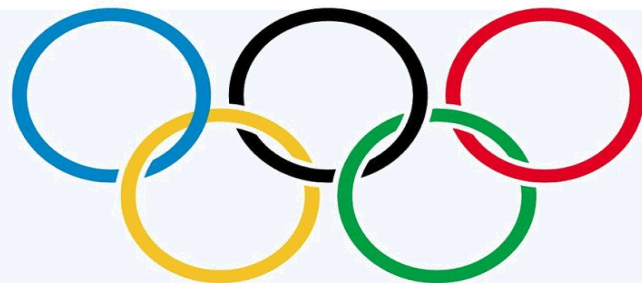
Year 7 – Modelling Data – Spreadsheets

National
Centre for
Computing
Education



Raspberry Pi

Olympic medals – who won what? 奥运奖牌——谁赢得了什么？



How many medals did Great Britain win in total? 英国一共赢得了多少枚奖牌?

Who won the most Gold medals? 谁赢得了最多的金牌?

Who won the fewest medals? 谁赢得了最少的奖牌?

Medals won at the 2016 Summer Olympics

Germany: 17 Gold, 10 Silver, 15 Bronze

Great Britain: 27 Gold, 23 Silver, 17 Bronze

China: 26 Gold, 18 Silver, 26 Bronze

Russia: 19 Gold, 17 Silver, 20 Bronze

United States: 46 Gold, 37 Silver, 38 Bronze

Japan: 12 Gold, 8 Silver, 21 Bronze

France: 10 Gold, 18 Silver, 14 Bronze

Was this data easy to work with?
这些数据容易处理吗?

How could you organise it to make it
easier?

您如何组织它才能使其变得更容易?



| | A | B | C | D | E | F |
|---|---------------|------|--------|--------|-------|---|
| 1 | | Gold | Silver | Bronze | Total | |
| 2 | Germany | 17 | 10 | 15 | 42 | |
| 3 | Great Britain | 27 | 23 | 17 | 67 | |
| 4 | China | 26 | 18 | 26 | 70 | |
| 5 | Russia | 19 | 17 | 20 | 56 | |
| 6 | United States | 46 | 37 | 38 | 121 | |
| 7 | Japan | 12 | 8 | 21 | 41 | |
| 8 | France | 10 | 18 | 14 | 42 | |

to calculate Total, we use a formula:
`=SUM(B2, C2, D2)`

*we will talk about formulae later

Lesson 1: Getting to know a spreadsheet

In this lesson you will:

- Identify columns, rows, cells, and cell references in spreadsheet software
- Use formatting techniques in a spreadsheet

在本课中，你将：

- 识别电子表格软件中的列、行、单元格和单元格引用
- 在电子表格中使用格式化技巧

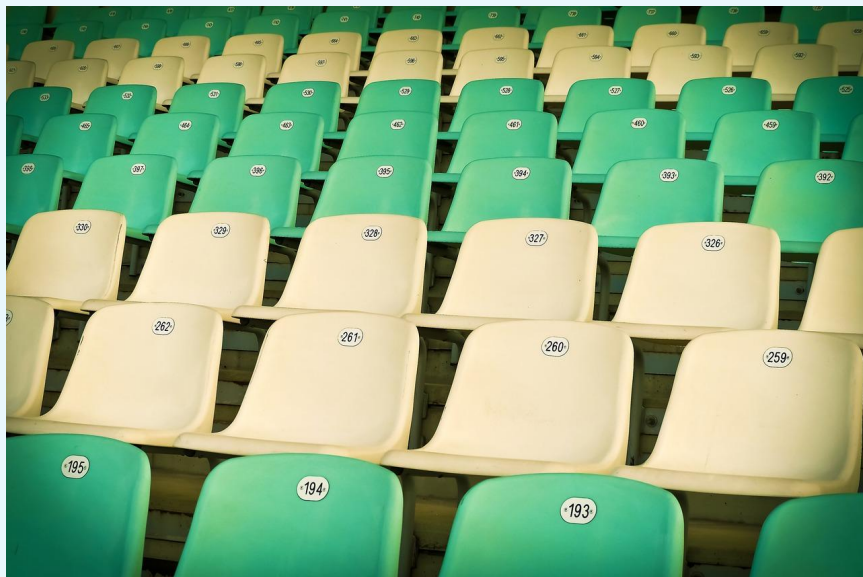
Cells

- Cells are spaces that hold data

单元格是保存数据的空间

- A cell reference tells you the location of a cell

单元格引用会告诉你单元格的位置



Each cell reference is made up of... 每个单元格引用由...组成。

- The column name 列名称

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

Each cell reference is made up of... 每个单元格引用由...组成。

- The column name 列名称
- The row number 行号

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

This is cell C4



An Excel grid with columns A, B, C, D and rows 1, 2, 3, 4, 5, 6. Cell C4 is highlighted with a red rectangle. Red circles are drawn around the column header 'C' and the row number '4'. A red arrow points from the circle around 'C' down to the top of the highlighted cell. Another red arrow points from the circle around '4' right to the left side of the highlighted cell.

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |

What cell is this? 这是什么细胞?

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |

What cell is this? 这是什么细胞?

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |

Answer: B4

What cell is this? 这是什么细胞?

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |

What cell is this? 这是什么细胞?

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |

Answer: A5

What cell is this?

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |

What cell is this? 这是什么细胞?

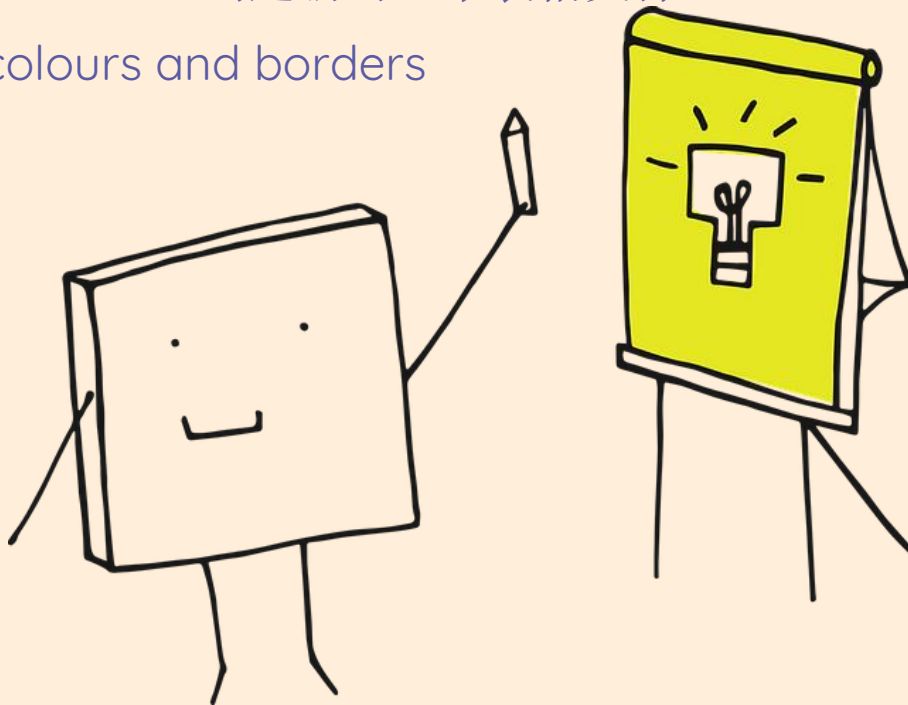
| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |

Answer: C2

Pixel art

- Create a new spreadsheet file 创建新的电子表格文件
- Experiment with cell colours and borders

尝试单元格颜色和边框



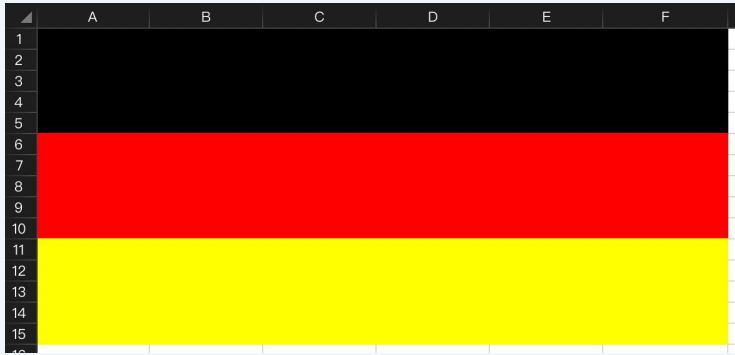
Pixel art



Task 1: Pixel art flag

- Colour in the cells of the sheet to make a flag (Choose 1 flag) 在工作表的单元格中涂上颜色以制作一面旗帜（选择 1 面旗帜）
- Write instructions in a document (.doc) on how to create this flag in a spreadsheet. 在文档 (.doc) 中写下如何在电子表格中创建此标志的说明





Example:

Name Kamila B. Instruction: Apply a black fill colour to the following cells:

- A1:F5

Apply a red fill colour to the following cells:

- A6:F10

Apply a yellow fill colour to the following cells:

- A11:F15

Row, column or cell?

In the following images, different parts of a spreadsheet are highlighted. Can you identify them?

行、列还是单元格?

下图突出显示了电子表格的不同部分。你能识别它们吗?

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |

Row

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |

Cell

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |

Cell

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |

Column

Name the range

In the following images, different ranges of cells in a spreadsheet are highlighted. Can you identify them?

命名范围

下图中，电子表格中不同范围的单元格被高亮显示。你能识别它们吗？

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |

A2:A6

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |

A5:C5

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |

A5:C7

What kind of borders?

What do you think each of the following border icons does?

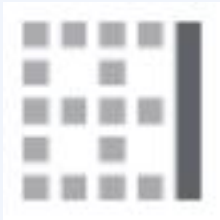
什么样的边框?

你认为以下每个边框图标的作用是什么?

Borders



A



B



C



D

Next lesson

In this lesson you learned...

About cell referencing

How to apply colour to individual cells

Next lesson you will...

Enter data into cells

Use basic formulas for calculations